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*Author's adress:* Dipl.-Biol. VRATISLAV MAZAK, Dept. of Syst. Zool., Charles University, Viničná, 7; Prague 2, ČSSR

## A new subspecies of Natterer's Bat, *Myotis nattereri* Kuhl, 1818 (Mammalia: Chiroptera) from Israel

By DAVID L. HARRISON

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*Myotis nattereri* is known from several localities in northern Israel. BODENHEIMER (1958) reviewed the existing records and considered that the populations found there were referable to the nominate race *M. n. nattereri*. Examination of a large series from Aqua Bella, near Jerusalem in the author's collection, as well as other material in the collections of the Tel Aviv University and the Hebrew University of Jerusalem, shows that this is not the case. This material is certainly quite distinct from the nominate form and also from the races found in southern Russia, which are *M. n. araxenus* Dahl, 1947 and *M. n. tschuliensis* Kuzyakin, 1935. It is clearly a new subspecies to science, which I propose to name

### *Myotis nattereri hoveli* ssp. nov.

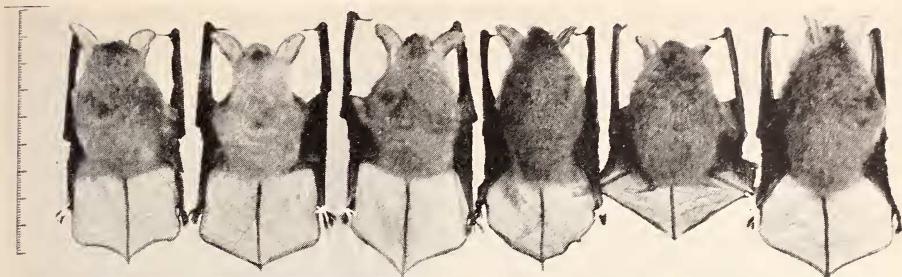
in honour of Mr. HAIM HOVEL of Haifa, who has given the author so much kind assistance with studies of the local mammal fauna.

#### Type Specimen

HARRISON collection, No. 11.3393. ♀ adult, obtained on 30th April, 1961 at Aqua Bella, near Jerusalem.

#### Diagnosis

Similar in essential characteristics to *M. n. nattereri*: the foot is small, less than half as long as the tibia; the ear is tall and narrow and the tragus very attenuated; the interfemoral membrane has a definite fringe of hairs; the crown area  $I^2$  is much greater than that of  $I^1$ . This form differs from *M. n. nattereri* by being much paler in colour on the back; the frontal region of the skull is distinctly more elevated in dorsal profile and the dentition is heavier. It is much smaller than *M. n. araxenus* Dahl, 1947 (Type locality, the village of Amagu, Azizbekovsky District, Araxes Rr. basin, Armenia) and smaller than *M. n. tschuliensis* Kuzyakin, 1935 (Type locality Tschuli, N. W. Kopet Dag, Turkmenia). The forearm in *M. n. hoveli* ranges from 38.2 — 40.3 mms (24 specimens) and the condylobasal length of the skull varies from 14.2 — 14.9 mms. KUZYAKIN (1950) states that in *M. n. araxenus* the forearm ranges from 42.3 — 47.8 mms, the condylobasal length of the skull 16.2 — 16.8 mms., while in the race *M. n. tschuliensis* the forearm measures 41.7 — 42 mms. and the condylobasal length of the skull 15 — 15.1 mms.



On left: 3 examples of *M. nattereri hoveli* Aqua Bella, near Jerusalem, 30 IV. 61. — On right 3 examples of *M. nattereri nattereri*. — Left: HARR. No. 10. 1286. ♀ Godstone, Surrey 9. III. 52. — Centre: HARR. No. 8. 1108. ♀ Segeberg Gipshöhle, Schleswig-Holstein. 17. I. 51. — Right: HARR. No. 6. 972. ♀ Bury St. Edmunds, Suffolk. 4. III. 50.

### Description of the type specimen

The external characters of this bat are essentially similar to *M. n. nattereri*. The ears and membranes are rather paler and the interfemoral membrane is more translucent in this form. The pelage is long and dense; the hairs are about 8 mms. long in the mid-dorsal region and about 5.5 mms. on the chest. It only just extends on to the origin of the antebrachial, wing and interfemoral membranes above and below, some hairs extending on the ventral surface of the plagiopatagium as far laterally as the level of the elbow. The basal two-thirds of the hairs is slaty blackish throughout. The colour of the tips on the back is a uniform light buffy brown, far paler than the typical race (See figure 1) and most nearly matching B. 3, Lark Parchment + Plate 12 of MAERZ & PAUL (1950), slightly darker over the rump. The ventral surface is throughout white, with the slaty hair bases showing through slightly; the line of demarcation between the two surfaces on the side of the neck is rather indistinct.

### Cranial and dental characters

The skull is lightly built and differs strikingly from that of *M. n. nattereri* by its more elevated frontal region in dorsal profile, but the skull does not otherwise differ significantly from the nominate race. The dentition is essentially as in *M. n. nattereri* but distinctly heavier throughout. This difference is easily appreciated by comparing the crown areas of the upper premolars, which are substantially larger in this form.

### Measurements of the type specimen (in mms)

Total length 85.3; tail 37.1; forearm 39.3; foot 9.2; ear 17.2; cranial measurements: greatest length of the skull 15.9; condylobasal length 14.8; zygomatic width 9.3; breadth of the braincase 7.5; interorbital constriction 3.5; maxillary cheekteeth C—M<sup>3</sup>: 5.8; mandibular cheekteeth C—M<sub>3</sub> 6.1; mandible 11.6.

### Remarks

Although the southern Russian races of Natterer's Bat are not very well known, it is clear that *M. n. hoveli* differs from them in important particulars. The Armenian race *M. n. araxenus* is very much larger. This is a pale race, which has recently been found in N. W. Iran (HARRISON, 1963). *M. n. tschuliensis* is also a pallid form but differs in having the lower abdomen buffy. It is clearly distinctly larger than this

form and is said to have the outside border of the ear with a well marked emargination. This is a variable feature in the species however, and the character is of dubious systematic value. The frontal region of the skull is elevated in *M. n. tschuliensis* and the nasal region is narrow and protracted; the occipital region sharply prominent. It is interesting that the tendency to elevation of the frontal braincase in the Asiatic forms of this species apparently reaches its extreme in the eastern *M. n. amurensis* Ognev, 1927 (Type locality Amur Rr., E. Siberia).

### Acknowledgements

The author is greatly indebted to Mr. HAIM HOVEL and Dr. J. M. HARRISON for their assistance in the field. Dr. J. WAHRMAN and his colleagues at the Hebrew University of Jerusalem not only provided invaluable assistance in the field, but also permitted me to examine the material in the University collection. I am also indebted to Dr. H. MENDELSSOHN of Tel Aviv University, who placed the material in his care at my disposal and to Dr. H. FELTEN of the Senckenberg Museum, Frankfurt am Main, for the loan of a specimen. Mr. ERNEST FIELDER of Sevenoaks kindly prepared the photographic figure on my behalf. Dr. J. G. HARRISON obtained important comparative material from Germany.

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*Authors address:* Dr. DAVID L. HARRISON, Bowerwood House, St. Botolphs Road, Sevenoaks, Kent, England

## SCHRIFTENSCHAU

FLADE, JOH. ERICH: Das Araberpferd. Die Neue Brehm-Bücherei 291, A. Ziemsen-Verlag, Wittenberg-Lutherstadt, 1962. 136 S., 62 Abb., 8,- DM.

Im Rahmen der für einen weiteren Leserkreis gedachten Veröffentlichungen über Tiere nimmt „Die Neue Brehm-Bücherei“ eine besondere Stellung ein. Durch die Einbeziehung des Namens eines um die Popularisierung des Wissens um die Tierwelt verdienten Forschers entsteht eine besondere Verpflichtung. Eine unabdingbare Grundlage für populäre Schriften, die ernst genommen werden wollen, ist wissenschaftliche Exaktheit und eine Wiedergabe der modernen Erkenntnisse.

Das Buch von FLADE über das Araberpferd entspricht leider dieser Voraussetzung nicht. Schon die einleitenden Ausführungen über die Herkunft und Zuchtgeschichte sind höchst anfechtbar. Allgemein dürfte heute anerkannt sein, daß unser Hauspferd auf *Equus przewalskii* mit seinen Unterarten in der Form, wie HEPTNER (1961) die Art charakterisiert hat, zurückzuführen ist. Wenn trotz einer solchen Erkenntnis von einer speziellen Form des Urwildpferdes in Nordafrika gesprochen wird, welches Zusammenhang mit Hauspferden haben sollte, ist das leichtfertig.

Ähnliches gilt für andere Stellen. — Die Angabe, daß beim Haushund keine Reduktion des Gehirngewichtes erfolgt sei, ist falsch. Ebenso kann die Aussage, daß aus einem Gehirngewicht ohne weiteres auf die geistige Leistungsfähigkeit geschlossen werden könnte, nicht aufrecht erhalten werden. Gewiß hat HESS (1962) recht, wenn er sagt, daß der Inhalt des subjektiven Erlebens an den Bau des Gehirnes und die Eigenschaften der strukturellen Elemente